Los Alamos Technical Associates, Inc.

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December 10, 2007

Mr. Brian Stonebrink
Remedial Project Manager
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, AZ 85007

Subject: Responses to Comments Regarding the First Semi-Annual 2007 Groundwater Monitoring Report at the Phoenix-Goodyear Airport South (PGA South) Site, Goodyear, Arizona

Dear Mr. Stonebrink:

Attached are responses to ADEQ comments regarding the first semi-annual 2007 Groundwater monitoring report at the PGA South site. Los Alamos Technical Associates, Inc. (LATA) and TRC Solutions, Inc. (TRC) are submitting these responses on behalf of The Goodyear Tire & Rubber Company (GTRC) to complete the administrative record. Most of the comments will be addressed through modification of subsequent semi-annual reports. However, two of the figures have been revised to correct technical oversights on the contouring.

If you have any questions, please feel free to call Ron Clark at (330)796-7430 or me at (614) 508-1213.

Sincerely,

LOS ALAMOS TECHNICAL ASSOCIATES, INC.

Todd Struttmann, P.E.
Assistant Vice President/Program Manager

cc: R. Clark, GTRC
M. Aycock, USEPA
T. Maize, TRC (electronic only)
K. Murdock, CH2MHill
S. Lloyd, LATA (electronic only)

Responses to ADEQ Comments Dated October 11, 2007
Regarding the First Semi-Annual 2007 Groundwater Monitoring Report at the
Phoenix-Goodyear Airport (PGA) South Site
Dated August 7, 2007

The comments provided by ADEQ have been considered and will be incorporated into the next semi-annual report. These responses are provided for completeness in the record. The individual comments are listed followed by the response in *italics*.

General Comments:

Comment 1:
ADEQ is interested in populating our Groundwater Database and would like a copy of the Electronic Data Deliverable (EDD) from the laboratory in order to convert the data into the ADEQ Groundwater database submittal format or the lab may be able to put the data directly in the ADEQ format.

Response:
LATA provided the groundwater data EDDs from the laboratory through June 2006 in a submittal dated July 14, 2006. These EDDs are in the ADEQ file format as requested. Electronic chemical data will be provided in subsequent semi-annual reports. The next semi-annual report is due February 15, 2008.

Comment 2:
ADEQ requests a table with the sampling schedule for the groundwater monitoring wells to be listed in future semi-annual reports.

Response:
We will include the sampling matrix table in future semi-annual reports.

Comment 3:
Figure 3 groundwater contours appear to be generally good except in the areas of the injection wells in the southwest portion of the map. It is suggested that this area may require additional attention.

Response:
The reviewer is correct in recognizing that the presentation and contouring of the Subunit A injection gallery can be improved. Please see the responses to Comments 6 & 7 for additional discussion.

Under the current operating system, not all of the Subunit A injection wells are individually metered. Whether an injection well is active or inactive is determined by visiting the well site. Most of the injection wells have meters that can be accessed to determine actual flow rates during the water level measurement period. This provides additional information to the professional preparing the contour maps.

Comment 4:
A copy of a representative field form when sampling is requested to be included along with the lab data, case narrative and chain of custody.

Response:
LATA will provide field forms as an appendix in future reports.

Specific Comments:

Comment 1:
Page 2, **1.1 Chemical Evaluation of the Subunit A Contaminant Plumes** – The first non-bulleted paragraph on this page combined with the following bullet point state that Well NE-2 is an active extraction well, however; according to Figures 1 and 2 this well is inactive, being indicated on the map by a blue square. Please clarify.

Response:
NE-2 is an active extraction well and the coloration on Figure 1 was incorrect leading the reviewer to interpret the well as inactive.

Comment 2:
Page 2, **1.1 Chemical Evaluation of the Subunit A Contaminant Plumes** – Please explain from the second-to-last paragraph in this section how miscommunication causing the May 8-9 samples to be analyzed for dissolved metals, only, will be avoided in subsequent sampling events.

Response:
There has been a change in the field operation personnel with increased communication with the new operator.

Comment 3:
Page 4, **Chromium Monitoring Program** – Please avoid the use of the word "chrome" as is used in the first paragraph of this Section. Technically, chrome is a finishing treatment utilizing electrolytic deposition of chromium overlying polished nickel plating, and is not a synonym for chromium as a constituent.

Response:
Comment noted.

Comment 4:
Page 5, **2.1 Chemical Evaluation** – The second bullet-point discusses Well GMW-13UC, and states that (the TCE level) has decreased since the last reporting event. If continuing to discuss the March 27, 2007 event which detected 170 µg/L as discussed in this paragraph, this is an increase from the previous reporting period of December 21,

2006 from 97.65 µg/L. If it is desired to express that the level has decreased in the successive reporting period (June 7, 2007 at 135.9 µg/L) this should be clarified.

Response:
Clarified Text: "The well with the highest concentration in this plume continues to be well GMW-13UC with the result of 170 µg/L, which has *increased* since the previous reporting period."

Comment 5:
Page 5, **2.2 Hydraulic Capture** – The discussion regarding capture at E-102 seems highly optimistic. Based upon the flow regime around Well E-102 (groundwater elevation 876.3 feet above mean sea level (amsl)) there is no proof that the plume is being entirely captured by this well. Based upon probable calculations of volume of capture around the well (V) and the volume of the impacted area around the well (V') the ratio of V'/V indicates that the concentration around Well E-102 is likely to be several times the detected level of 4.12 µg/L found during the sampling event due to dilution from the surrounding area. In addition we have only speculative assessment of TCE levels north and northwest of Wells COG-05, GMW-17UC, and GMW-16UC and as yet no information regarding TCE levels downgradient of Well E-102.

Response:
The question of plume definition and capture will be addressed through installation of three planned monitoring wells. Bids are presently being solicited from drillers for the drilling, installation and testing of three Subunit C monitoring wells that are to be placed in an east-west orientation immediately north of the interpreted contaminant plume. It is anticipated that these wells will be installed during the first quarter of 2008, assuming site access agreements are amended. These wells are intended to provide confirmation of the northerly extent of the PGA-South Subunit C groundwater contamination and to permit a greater understanding of the capture area associated with Extraction Well E-102.

Comment 6:
Figure 3, **Potentiometric Map Subunit A** – The mounding effect at the southwest corner of the map is shown to be closed northwest, west, and south of Well IO-05. Well IO-07 shows similar high water elevation. Based upon this should this well be included in the mounded area, or at least the mounded area depicted by a dashed line in this area?

Response:
LATA agrees that well IO-07 should be included in the mounding related to the southern Subunit A injection gallery. Similarly, mounding should be interpreted surrounding well IO-06 (elevation 898.99' asl) when compared to upgradient well IO-17 (elevation 896.14' asl). As presented in the response to General Comment 3, proposed updates and modifications to the individual injection wells of the injection gallery will greatly improve future representations.

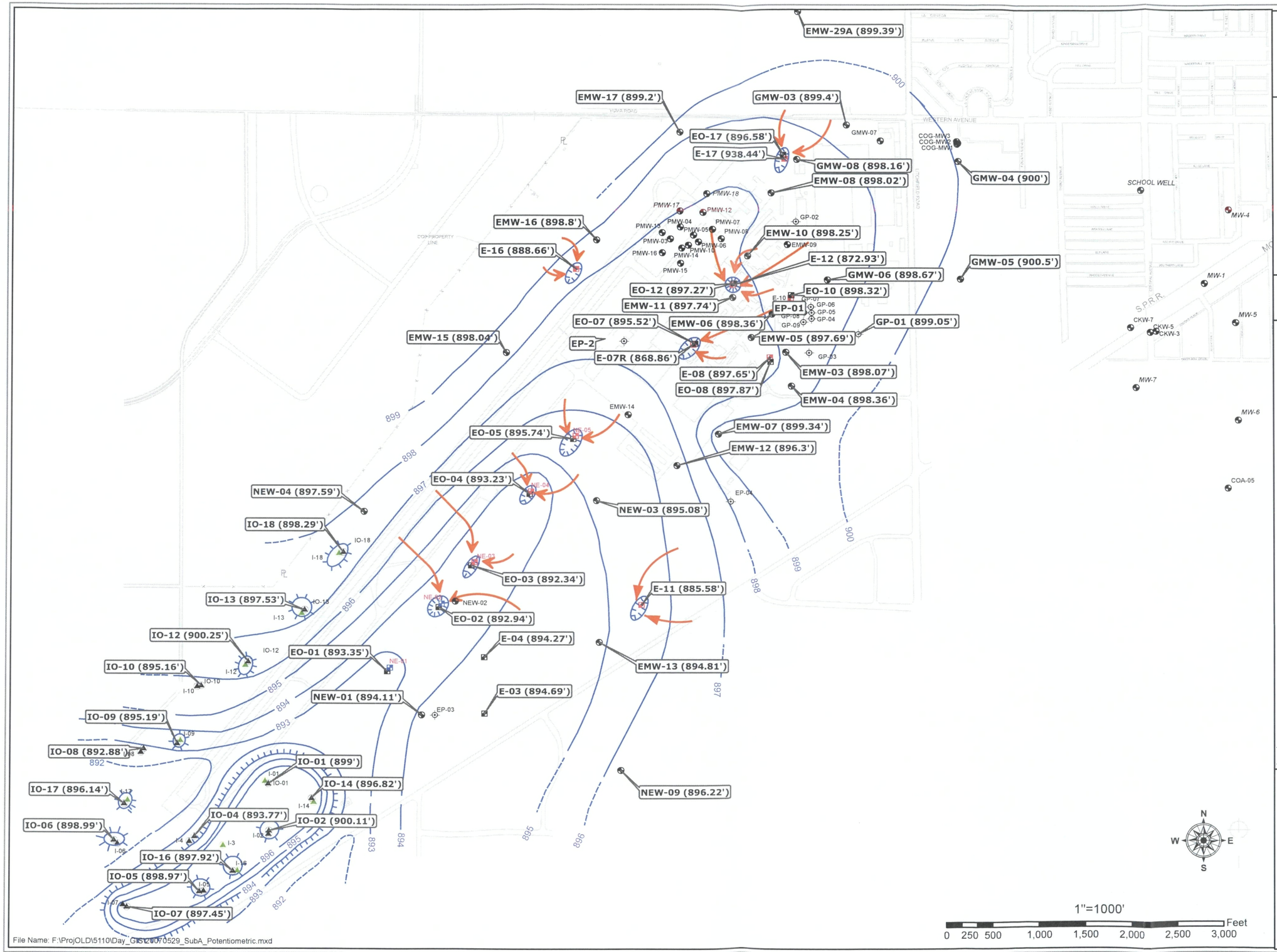
Also, LATA would like to modify the explanation given in the Figure 3 Legend for those water level values that were highlighted in yellow. The caption in the Legend states "Suspect Water Level and Not Used in Interpretation". This is not correct. Those values that are highlighted in yellow correspond with Extraction well E-17, and Injection Observation Wells (IO-01,IO-06,IO-07 and IO-09. E-17 is an active pumping well, its water level measurement would not be used for contouring, but is not "suspect". The IO wells are associated with the southern injection gallery and have been previously discussed in the responses. The yellow highlighted IO water level measurements are "high" as would be expected, but are not "suspect". This confusion will be eliminated from future map presentations.

Comment 7:
Figure 3, **Potentiometric Map subunit A** – Well IO-09 is shown with a water elevation of 895.19'; however the contours indicate only approximately 893.5' at this location.

Response:
The reproduced Figure 3 Subunit A Potentiometric Map shows an injection mound surrounding well IO-09. This interpretation is warranted based on comparisons with water levels recorded in adjacent upgradient and downgradient wells.

Comment 8:
Figure 9, **Potentiometric Map Subunit C Jan 29 – Jan 31, 2007** – Green arrows are shown leading into Well E-101 and Well E-102. This type of line is not shown in the Legend and their meaning is unclear. If intended to be flow lines the color should be corrected for consistency.

Response:
The figure is correct. The green triangles represent injection wells I-101 and I-102. The confusion likely came from the fact that the leader line to the wells tie into these triangles making them look like arrows. We will ensure the presentation in subsequent figures is more clear.



File Name: F:\ProjOLD\5110\Day_GIS\20070529_SubA_Potentiometric.mxd

5110
PHOENIX-GOODYEAR
AIRPORT SITE
PHOENIX, ARIZONA

FIGURE 3

Potentiometric Map Subunit A Jan 29 - Jan 31, 2007

1ST SEMI-ANNUAL 2007

Date: 7/27/2007
Project Number: 10801.5110

Legend

- PIEZOMETER
- ACTIVE INJECTION WELL
- INJECTION WELL
- MONITORING WELL
- EXTRACTION WELL
- ACTIVE PRODUCTION WELL
- INACTIVE PRODUCTION WELL
- POTENTIOMETRIC CONTOUR
- FLOW

AVERAGE PUMPING RATES FOR JANUARY 2007

WELL	AVG.RATE (gpm)
I14	31
I17	1
NE1	0
NE2	30
NE3	85
NE4	42
NE5	101
E7R	44
E8	0
E10	0
E11	94
E12	94
E16	105
E17	30

Note: Avg. Jan 2007 injection rates for I-2,I-5,I-12,I-13,I-16, and I-18 are estimated at 92 gpm

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